



FN SCAR[®]

**INSTRUCTIONS FOR FN SCAR
NON-RECIPROCATING CHARGING
HANDLE KIT**

INSTRUCTIONS FOR FN SCAR® NON-RECIPROCATING CHARGING HANDLE KIT

These instructions cover the installation and operation of the FN SCAR® Non-Reciprocating Charging Handle (NRCH) Kit for SCAR 16S/17S/20S rifles. The FN SCAR NRCH Kit allows for reciprocating charging handle FN SCAR rifles to be converted to the non-reciprocating charging handle.

The FN SCAR NRCH Kit features an ambidextrous non-reciprocating charging handle assembly making the FN SCAR series even more user-friendly and adaptive. You may use one or both charging handles in your rifle and they can be placed on either side based on user preference. This new feature will allow for more flexibility with hand placement on the rifle, better optical mounting choices with an offset charging handle, and less concern for a moving charging handle when bracing against barriers or other supports. It represents the adaptability and modular capability of the FN SCAR.

Consult your FN SCAR® owner's manual for information on the safe handling, maintenance and operation of your FN® firearm. If you do not have an owner's manual you can download a copy from www.fnamerica.com or you may request one at no charge from;

FN America, LLC, P.O. Box 9424, McLean, VA 22102.

Phone 1-(800)-635-1321, option 4 or email us at customerservice@fnamerica.com.

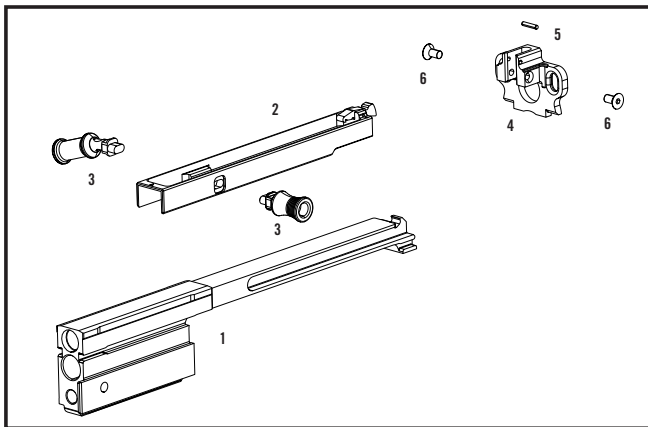
NRCH KIT CONTENTS (Figure 1)

1. NRCH Bolt Carrier
2. NRCH Charging Sled Assembly
3. Charging Handles: 1 short, 1 offset
4. NRCH Front Plate
5. Latch Pin
6. Front Plate Screws x2

There are two different FN SCAR NRCH Kits available. Make sure that you have the correct kit for your FN SCAR:

- FN SCAR 16S
SCAR Light NRCH Conversion Kit, P/N: 20-100504
- FN SCAR 17S and FN SCAR 20S
SCAR Heavy NRCH Conversion Kit, P/N: 20-100505

FIGURE 1



TOOLS AND EQUIPMENT REQUIRED (not included)

1. TORX® T-25 bit on a driver
2. 62 in/lb (7Nm) torque wrench with TORX®T-25 bit
3. 2.5mm hex wrench or bit on driver
4. 22.1 in/lb (2.5Nm) torque wrench with 2.5mm hex bit
5. Heat gun capable of 500°F (260°C)
6. Loctite 263 permanent high strength thread locker (or other equivalent permanent thread locker)
7. Padded vice is recommended.

INSTALLATION INSTRUCTIONS

To view an instructional video of these procedures, visit the FN website:
<https://fnamerica.com/customer-support/instructional-video>

CAUTION:

BEFORE INSTALLING THE SCAR NRCH KIT INTO YOUR RIFLE, FULLY READ AND UNDERSTAND THESE INSTRUCTIONS. IF YOU ARE NOT CONFIDENT THAT YOU CAN COMPLETE THE INSTALLATION ON YOUR OWN, CONSULT A QUALIFIED GUNSMITH, A CERTIFIED FN SCAR ARMORER OR CONTACT THE FN CUSTOMER SERVICE DEPARTMENT IN COLUMBIA, SOUTH CAROLINA.

CAUTION:

THE INSTALLATION OF THE FN SCAR NRCH KIT REQUIRES DISASSEMBLY BEYOND WHAT IS CONSIDERED OPERATOR-LEVEL MAINTENANCE. IT REQUIRES SOME SPECIALIZED TOOLS THAT ARE NECESSARY FOR SUCCESSFUL INSTALLATION AND MAY BE DANGEROUS WITH IMPROPER USE. FN CANNOT BE RESPONSIBLE FOR INCORRECT INSTALLATION BY ANYONE NOT CERTIFIED TO SERVICE FN SCAR RIFLES THAT MAY RESULT IN DAMAGE TO YOUR FN SCAR OR THE CREATION OF AN UNSAFE CONDITION. IF YOU ARE NOT CONFIDENT IN YOUR ABILITY TO INSTALL THE NRCH KIT,

CONTACT A QUALIFIED GUNSMITH, YOUR DEPARTMENTAL ARMORER OR THE FN CUSTOMER SERVICE CENTER IN COLUMBIA, SOUTH CAROLINA.

⚠ DANGER

BEFORE PERFORMING DISASSEMBLY PROCEDURES, PLACE THE SAFETY SELECTOR IN THE “ON SAFE” POSITION. THEN (1) REMOVE THE MAGAZINE, (2) LOCK THE BOLT OPEN AS EXPLAINED IN SECTION 10.2 OF YOUR FN SCAR OWNER’S MANUAL, AND (3) MAKE CERTAIN THE CHAMBER IS COMPLETELY UNLOADED. ALWAYS KEEP THE MUZZLE POINTED IN A SAFE DIRECTION. FAILURE TO FOLLOW THESE WARNINGS COULD RESULT IN SERIOUS INJURY OR DEATH.

⚠ DANGER

WEAR EYE PROTECTION WHEN DISASSEMBLING AND SERVICING YOUR RIFLE TO PREVENT SPRINGS, SPRING LOADED PARTS, SOLVENTS OR OTHER AGENTS FROM CONTACTING YOUR EYES, RESULTING IN INJURY.

The FN SCAR NRCH Kit will replace some of the original components included with your original reciprocating charging handle FN SCAR. Installation procedures for SCAR 16S and SCAR 17S are identical. **The SCAR 20S installation does not require the removal of the barrel assembly or the replacement of the front receiver plate.**

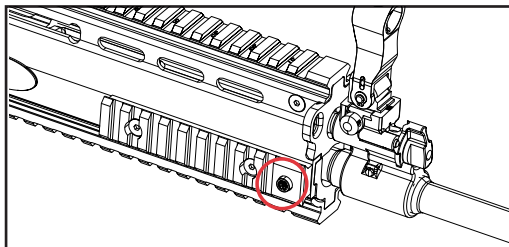
1. Ensure your firearm is completely unloaded and contains no ammunition as described in your FN SCAR owner’s manual. Ensure the safety selector is in the “on safe” position as described in your FN SCAR owner’s manual.
2. Disassemble your firearm as described in Section 19 of your FN SCAR owner’s manual by removing the following components:
 - a. Trigger module assembly

- b. Rear stock module
- c. Moving parts assembly: drive spring and guide rod, bolt carrier assembly, charging handle.
- d. Remove the firing pin retaining pin, firing pin, bolt cam pin and the bolt assembly from the bolt carrier and set aside.

3. For SCAR 16S and 17S rifles, remove the barrel assembly. **For SCAR 20S, proceed to Step 7 of these instructions.** To remove the SCAR 16S/17S barrel assembly:

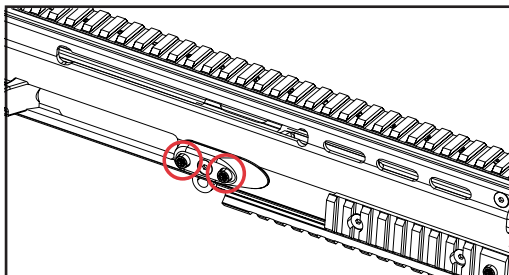
- a. Using a TORX® T-25 wrench, loosen the two forward barrel support screws, one on each side (Figure 2) by turning them COUNTERCLOCKWISE until the screws reach their end of travel. The screws will pop up slightly when disengaged from their threads. They SHOULD NOT be completely removed from the receiver.
- b. Using a TORX® T-25 wrench, loosen the four rear barrel extension screws (Figure 3) (two on each side) by turning them COUNTERCLOCKWISE until the screws reach their end of travel. The screws will pop up slightly when disengaged from their threads. They SHOULD NOT be completely removed from the receiver (Figure 4).
- c. Remove the FN SCAR barrel assembly by pushing forward on the chamber area of the barrel extension (Figure 5) until the rear barrel extension lugs are visible in the cut-away, recessed portion of the receiver frame (Figure 6).
- d. Lift the barrel assembly up and out of the receiver frame (Figure 7).

FIGURE 2



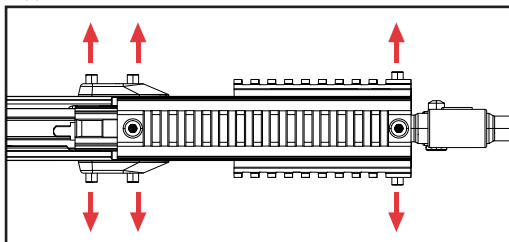
Loosen forward barrel support screws.

FIGURE 3



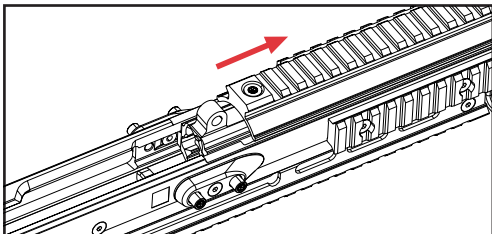
Loosen barrel extension screws.

FIGURE 4



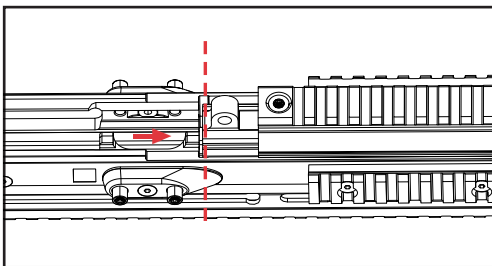
Screws pop out slightly.

FIGURE 5



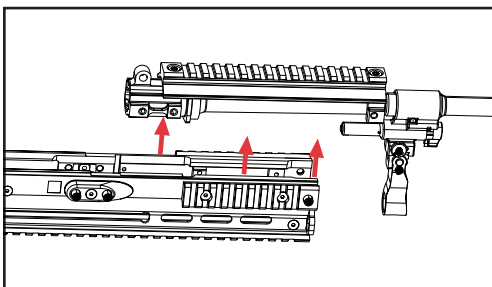
Push barrel assembly forward.

FIGURE 6



Barrel extension positioned in cut-away.

FIGURE 7



Lift barrel out.

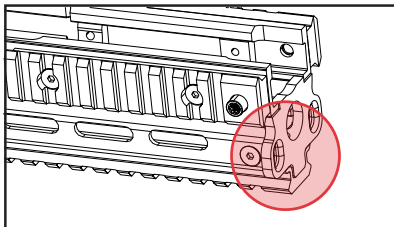
⚠ DANGER

EXERCISE EXTREME CAUTION WHEN USING THE HEAT GUN. FOLLOW THE SAFETY AND OPERATING PROCEDURES FOR YOUR HEAT GUN. FAILURE TO DO SO MAY RESULT IN FIRE HAZARD, PERSONAL INJURY, OR DEATH.

PARTS HEATED DURING DISASSEMBLY WILL BE HOT ENOUGH TO CAUSE BURNS TO UNPROTECTED SKIN AND MAY CAUSE DAMAGE TO SURFACES THEY ARE EXPOSED TO. USE CAUTION WHEN HANDLING THEM.

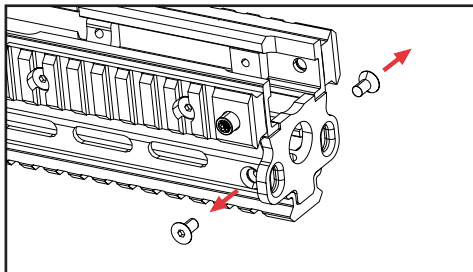
4. Remove the receiver front plate:
 - a. Position the receiver in a padded vice.
 - b. Using the heat gun, apply localized heat to the receiver front plate and screws for no less than 2-3 minutes or until the part reaches approximately 480° F (250° C). (Figure 8)
 - c. Using the 2.5mm hex wrench, remove these screws carefully as they have thread locker and will be hot from the heat gun application. (Figure 9) Care must be taken to not damage the screws before they are removed by ensuring the thread locker is first unlocked with heat. Remove the screws while still hot as the thread locker may re-set. Carefully set screws aside or discard.
 - d. Allow the front plate to cool to the touch and remove the front plate from the receiver and set aside. (Figure 10) It may need to be tapped out gently. Clean excess thread locker from the screw countersinks on the receiver.

FIGURE 8



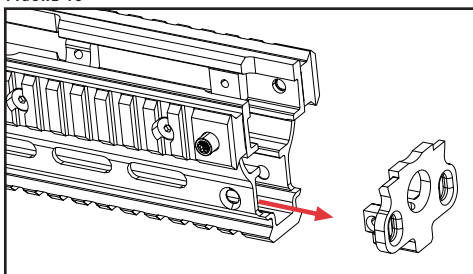
Apply localized heat to receiver front plate.

FIGURE 9



Carefully remove the front plate screws.

FIGURE 10



Remove the receiver front plate.

5. Install the new NRCH receiver front plate

a. Install the latch pin into the hole in the new NRCH front plate.

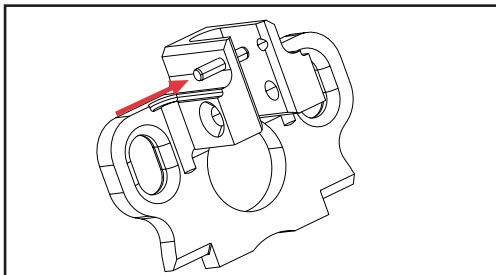
(Figure 11)

b. Install the NRCH front plate into the receiver. (Figure 12)

c. Apply a small drop of thread locker to the threads of each new front plate screw and start into the receiver front plate. (Figure 13)

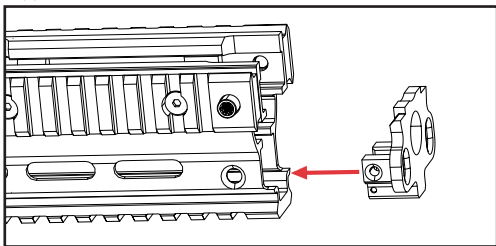
d. Use a torque wrench set at 22.1 in/lbs (2.5Nm) with a 2.5mm hex bit to tighten the two front plate screws. For best adhesion, allow the thread locker to cure for 24 hours before firing the rifle.

FIGURE 11



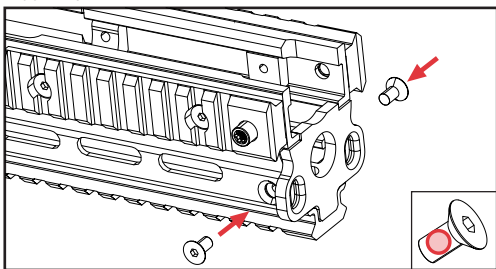
Install latch pin into NRCH front plate.

FIGURE 12



Install NRCH front plate into receiver.

FIGURE 13

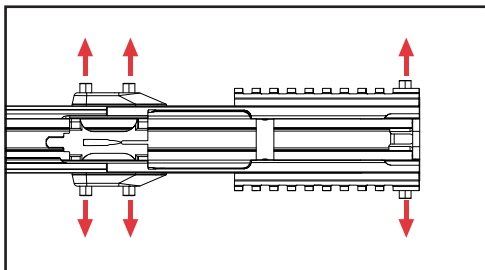


Install the new front plate screws.

6. Reinstall the barrel assembly

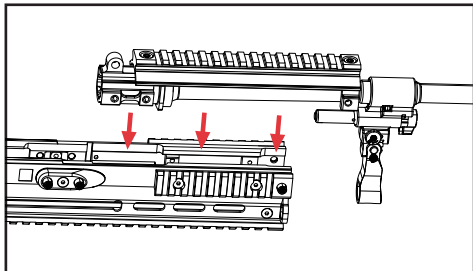
- a. Ensure the six barrel retaining screws are popped out. (Figure 14)
- b. Insert the barrel assembly ensuring the barrel extension lugs fall freely into the cut-away, recessed portion in the receiver frame (Figure 15).
- c. Align the barrel extension lugs with the guide channel, sliding the barrel assembly rearward until it is fully seated in the receiver frame and all barrel extension screws are aligned with the barrel assembly (Figure 16). Take care to guide the front barrel support into the front of the receiver (Figure 17).
- d. Using the torque wrench set at 62 inch-pounds (7Nm) and a TORX® T-25 adapter, starting from the rear, tighten the barrel extension screws in the order outlined in Figure 18. When tightening the screws be sure to apply a downward pressure and tighten by turning them CLOCKWISE. There should be an audible and/or tactile signature from the torque wrench when they reach the proper torque setting of 62 inch-pounds (7Nm) (Figures 19 & 20).

FIGURE 14



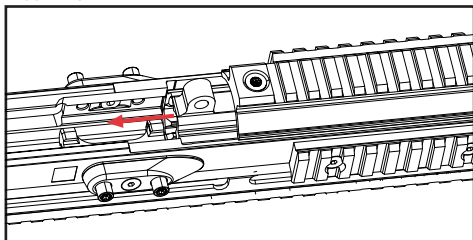
Ensure screws are popped out.

FIGURE 15



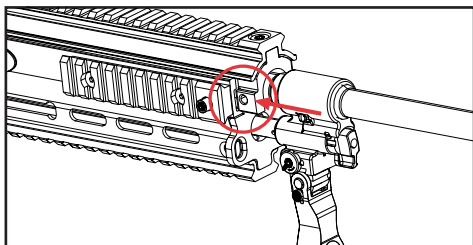
Align barrel extension with cut-away opening in receiver and lower barrel into receiver.

FIGURE 16



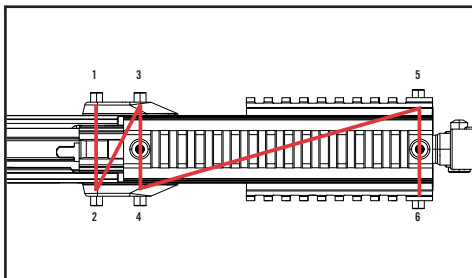
Slide barrel assembly rearward.

FIGURE 17



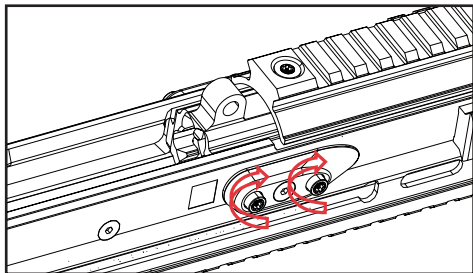
Guide front barrel support into receiver.

FIGURE 18



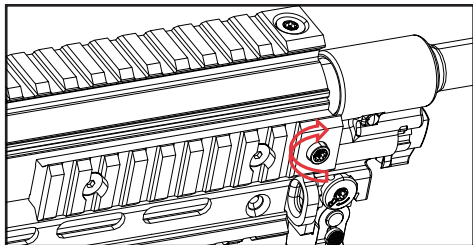
Barrel screw torque sequence.

FIGURE 19



Tighten barrel extension screws.

FIGURE 20



Tighten forward barrel support screws.

7. Reassemble and install the moving parts assembly

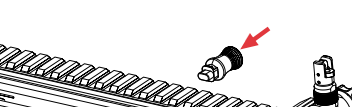
- a. Reassemble the bolt, cam pin, firing pin, and firing pin retaining pin into the NRCH bolt carrier as explained in Section 21.2 of your FN SCAR owner's manual.
- b. Install the charging sled, latch first and oriented up, into the top raceway in the rear of the receiver (Figure 21). Slide it forward until the charging handle pockets are visible in the opening at the rear of the charging handle slots.
- c. Insert the charging handles into the charging sled and slide the charging sled fully forward into its locked position (Figure 22). The charging handles can be placed on either side based on user preference. One or both charging handles may be used. The offset charging handle may be installed angling up or down.
- d. Install the return spring assembly into the bolt carrier. Make certain that the narrow end of the guide rod retaining plate is up.
- e. Ensure the upper portion of the bolt carrier is aligned with the bolt carrier guide rails inside the receiver frame and the bolt is fully forward in the bolt carrier (Figure 23). Slide the bolt carrier into the receiver.

8. Install the rear stock assembly as explained in Section 21.4 of your FN SCAR owner's manual.

9. Install the trigger module assembly as explained in Section 21.5 of your FN SCAR owner's manual.

10. Perform a function check as explained in Section 21.6 of your FN SCAR owner's manual.

FIGURE 22



The diagram shows a side view of the vehicle's front suspension assembly. A red arrow points to the lock pin on the front column, and another red arrow points to the lock pin on the rear column. The text "HY COLUMN SC-100" and "SC-100 MULTICASTER" is visible on the front column.

Install the charging handles and slide the charging sled forward into its locked position.

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OPERATING INSTRUCTIONS

NOTICE!

THE CHARGING HANDLES ON FN SCAR RIFLES EQUIPPED WITH NON-RECIPROCATING CHARGING HANDLE (NRCH) WILL NOT MOVE AS THE RIFLE CYCLES, LIKE ON EARLIER FN SCARs.

The FN SCAR with NRCH will operate the same as the original reciprocating charging handle FN SCAR except the charging handles do not reciprocate when the rifle fires. The charging sled still operates the bolt carrier in the same manner as before, including forward assist capability. Loading, firing, unloading, clearing, safety operations are unchanged with the addition and installation of the NRCH Kit.

Your FN SCAR can be returned to reciprocating by installing the original bolt carrier and charging handle in place of the NRCH bolt carrier, charging sled and charging handles. The NRCH front plate does not have to be replaced to convert back to reciprocating operation.

ADDITIONAL INFORMATION

If you have any questions or comments concerning these instructions, please contact Customer Service at customerservice@fnamerica.com or by phone at 1-(800)-635-1321, option 4. For more information about the FN SCAR® or other FN products, please visit us online at www.fnamerica.com.



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NRCH INSTALLATION INSTRUCTIONS: 38-101034-0222